

CLAIMS

What is claimed is:

1. An apparatus for controlling the power of a monitor, comprising:
a computer outputting a predetermined signal indicating whether the computer is powered on or off; and
a monitor receiving the predetermined signal and powering on and off according to the predetermined signal.

2. The apparatus of claim 1, further comprising:
a video card processing and transmitting video signals to the monitor;
wherein the predetermined signal output from the computer is output from a predetermined pin of the video card; and
wherein the predetermined signal is transmitted to the monitor whether the monitor is powered on or off, so that monitor information is readable.

3. The apparatus of claim 1, wherein the monitor comprises:
a memory storing monitor information, wherein the monitor information is provided to the computer whether the monitor is powered on or off;
a control unit comparing a reference level with a level of the predetermined signal, detecting a state of power of the computer based on a result of the comparison, and outputting a monitor power control signal; and
a power supply unit supplying or cutting off power to the monitor in accordance with the monitor power control signal output from the control unit.

4. The apparatus of claim 3, wherein the predetermined signal drives the memory so that the monitor information stored in the memory is read.

5. The apparatus of claim 3, wherein the control unit outputs a first control signal to supply power to the monitor in response to the level of the predetermined signal being higher than the reference level, and the control unit outputs a second control signal to cut off power to the monitor in response to the level of the predetermined signal being lower than the reference level.

6. The apparatus of claim 5, wherein the level of the predetermined signal is 5V in response to the computer being powered on, and 0V in response to the computer being powered off.

7. The apparatus of claim 1, further comprising a serial cable, wherein the predetermined signal is transmitted from the computer to the monitor via the serial cable.

8. An apparatus for controlling the power of a monitor, comprising:
a computer outputting a predetermined signal, in addition to data signals, indicating whether the computer is powered on or off; and
a monitor receiving the predetermined signal and the data signals, and powering on and off according to the predetermined signal.

9. The apparatus of claim 8, wherein the predetermined signal output from the computer is output from a predetermined pin that is not used in a transmission line for data communication between the computer and the monitor, and controls the powering on and off of the monitor.

10. The apparatus of claim 8, wherein the monitor is powered off when the predetermined signal is not received from the computer due to the computer being in a DPMS (Display Power Management System) mode or in a power off mode.

11. The apparatus of claim 8, wherein the monitor is powered on in response to the monitor receiving the predetermined signal transmitted from the computer after the monitor has been powered off.

12. The apparatus of claim 8, further comprising:
a control unit;
a power unit; and
one or more switches;
wherein the control unit outputs a power switching control signal to the one or more switches to control a power supply from the power unit in response to the predetermined signal, and the one or more switches route the power supply to other elements of the monitor.

13. A method of controlling the power of a monitor, the method comprising:
receiving a predetermined signal from a computer indicating whether the computer is
powered on or off; and
powering the monitor on and off according to the predetermined signal.

14. The method of claim 13, wherein the predetermined signal is transmitted to the
monitor whether the monitor is powered on or off, so that monitor information is readable.

15. The method of claim 13, wherein the powering on and off of the monitor further
comprises:

detecting a level of the received predetermined signal;
supplying power to the monitor in response to the level of the predetermined signal
being higher than a reference level; and
cutting off power to the monitor in response to the level of the predetermined signal
being lower than the reference level.

16. A method of operating a monitor that displays signals transmitted from a
computer, the method comprising:

receiving a predetermined signal transmitted to the monitor from the computer indicating
whether the computer is powered on or off; and
powering the monitor on and off according to the predetermined signal.

17. The method of claim 16, wherein the predetermined signal output from the
computer is output from a predetermined pin that is not used in a transmission line for data
communication between the computer and the monitor, and controls the powering on and off of
the monitor.

18. The method of claim 16, wherein the monitor is powered off when the
predetermined signal is not received from the computer due to the computer being in a DPMS
(Display Power Management System) mode or in a power off mode.

19. The method of claim 16, wherein the monitor is powered on in response to the
monitor receiving the predetermined signal transmitted from the computer after the monitor has
been powered off.

20. A system comprising:

a computer outputting a predetermined signal indicating whether the computer is powered on or off; and

a monitor receiving the predetermined signal and powering on and off according to the predetermined signal.

21. A monitor usable with a computer, comprising:

a control unit connected to the computer by a serial cable;

wherein the monitor is powered on and off according to a predetermined signal from the computer indicating whether the computer is powered on or off.

22. The monitor of claim 21, further comprising a power supply unit, wherein the control unit senses the predetermined signal and controls the power supply to supply, or to stop supplying, power to the monitor.